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A study was conducted to determine whether a significant relationship exists between the teacher's judgment of her pupils' social status and the pupils' "actual social rank" in the class. Six teachers (one for each grade from one through six) in a selected northern Indiana elementary school were given forms listing their pupils' names accompanied by three columns designated "work companion," "play companion," and "seat companion." On these forms, teachers ranked their pupils according to how they perceived each pupil's acceptance by his classmates in each of the areas. Then three different sociometric tests were administered to the pupils so they could rank each other in each of the three areas. The Spearman Rank-Order Correlation Coefficient was used to determine the relationship between the teachers' judgments of pupils' sociometric status and the actual sociometric status as measured by the sociometric tests. It was concluded "that there is a difference between teachers in the accuracy of their judgments concerning the sociometric status of their pupils." Therefore, it is recommended that further research be conducted in this area in order to determine how teachers' judgments may be improved so that teachers can, in turn, become more effective in promoting the social adjustment of pupils. (A 12-item bibliography is appended) (SG)

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TEACHER JUDGMENT OF PUPIL SOCIOMETRIC STATUS

BY

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Study directed by Charles R. DuVall, Ph.D.

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CHAPTER I

INTRODUCTION

Modern education has become increasingly aware of its role in the social and emotional development of todays students. No longer does the teacher's role consist only of teaching the cognitive functions. She has now taken on a large share of the responsibility for the social development of her pupils, and is continually striving to assist various pupils become more accepted by their classmates. However, before this can be achieved it is necessary for her to have some knowledge of the students' present social acceptability.

Possibly one could say that a teacher should be able to acquire this type of information by merely observing the interactions and relationships within the class. But, is there really any relationship between the teacher's judgment and the actual social rank of her pupils?

Purpose of the Study

This study is an attempt to find out if any significant relationship exists between the teacher's judgment of her pupils' social status and the pupils' actual social rank in the class. Or stated in the form of a null hypothesis, there is no significant relationship between the teacher's judgment of her pupils social status and the pupils' actual social rank in the class.

Definition of Terms

For purpose of clarity the terms used in this study are defined as follows:

Sociometric test--an instrument which "requires an individual to choose his associates for any group of which he is or might become a member."[1]

Criterion--basis on which associates are chosen on a sociometric test. In this study the criteria are work companion, play companion, and seat companion.

Sociometric status--"degree to which a pupil is accepted by his classmates, in terms of the number of choices he receives from them on a sociometric test."[2]

Teacher judgment--relative rank of students to their classmates in terms of the teacher's estimate of their sociometric status.

CHAPTER II

REVIEW OF LITERATURE

Although the literature on sociometric testing is voluminous, most of it has no direct bearing on the problem at hand. It appears as though only a limited number of studies have been made concerning teachers' judgments of student sociometric status, and only a few such studies have been undertaken recently.

The sociometric test, as such, was devised by Moreno, and first used in a public school in Brookyln, New York. All students from kindergarten through eighth grade were asked to choose from among their classmates whom they would most prefer to have sit near them. Moreno described the results of this first attempt as follows:

> As a consequence of the test given to these pupils a complex structure of the class organization was uncovered, widely differing from the prevalent one. A number of pupils remained unchosen or isolated; a number chose each other, forming mutual pairs, triangles, or chains; others attracted so many choices that they captured the center of the stage like others.[3]

A more extensive study concerning sociometric tests in the classroom was conducted by Bronfenbrenner. As a result of his study, Bronfenbrenner found that the number of choices a student receives on a sociometric test is a reliable index of sociometric status. He states:

> In summary, for sociometric situations involving as many as three criteria with five choices

> allotted per person, the total number of choices received by each child may be used with reasonable confidence as a reliable index of sociometric status provided the number of criteria and choices allotted remains constant for all groups tested.[4]

Ever since the sociometric technique was devised by Moreno there has been some question as to whether an outside observer could judge the sociometric status of members of a group. In Moreno's original administration of the test he asked the teachers to judge which boy and girl would receive most of the choices from their classmates and which two would receive next most. Furthermore, he asked them to judge which two would receive the least choices and which two would receive the next least. Concerning the teachers' judgments he commented:that "in 48 per cent of the instances the teachers' judgments coincided with the findings through the sociometric test in respect to the two most chosen boys and girls; in 38 per cent of the instances in respect to the least chosen boys and girls in her classroom."[5]

Bonney conducting a sociometric study had three fifth grade teachers make judgments concerning their pupils' sociometric status. In this study the teachers were asked to place their students in five categories--highest group, above average, about average, below average, and lowest group. Bonney found that in comparing the teachers' groupings of their students with the sociometric results that, "approximately ninety per cent of the children were placed by the teachers, either in the same quintile, or only one

removed from that in which they were placed by pupil choices."[6]

In another study by Bonney thirteen teachers were asked to make judgments in regard to the sociometric status of 291 high school students. These students were asked to select their two best friends. The results were then divided into three groups--high, middle, and low. The high group consisted of those who had received three or more choices; the middle group one or two choices; and the low group no choices. Three months later the thirteen teachers were asked to rate the students in the high, middle, or low group on the basis of their estimate of how many choices each student received. The average accuracy of teachers' judgment was 45 per cent for the high and middle group, and 28 per cent for the low group.[7]

Gage, Leavitt, and Stone in a much more extensive investigation compared the judgments of 103 teachers in fourth, fifth, and sixth grade classes, with the results of a sociometric test which was given to their students. In this test the pupils were asked to choose the five children in their room whom they would most prefer to have as classmates if the class were divided into two groups. The teachers' judgments consisted of predicting which five children each pupil would choose. The relationship between the teachers' judgments and the sociometric results was then determined by correlating the number of choices each

pupil received on the sociometric test with the number of choices the teacher predicted each pupil would receive. An average correlation coefficient of .48 was obtained for the 103 teachers which shows a fair degree of relationship between teachers' judgments and pupils' choices.[8]

In another study Gronlund asked the teachers to rank their pupils in the order in which they thought the pupils were accepted by their classmates instead of having them predict the exact responses each individual would make. Then the relationship between the teachers' judgments and the sociometric results was determined by correlating the teachers' rank-order predictions of their pupils' acceptance with the pupils' actual rankings, based on the number of sociometric choices each pupil received. As a result Gronlund obtained an average correlation coefficient of .60 for 40 sixth grade teachers' judgments using three different sociometric criteria: work companion, play companion, and seat companion. Their judgments of pupil acceptance as work companions was found to be a correlation of .61, for play companions .55, and for seat companions .62.

Although Gronlund found a difference in the accuracy of teachers' judgments among the criteria of work companion, play companion, and seat companion, he found no difference in the accuracy of teachers' judgments of the sociometric status of boys and girls.[9]

In a more recent study Hoffman, Amidon, and Schantz asked 28 teachers in an elementary school to anticipate the

three pupils in their class who would receive the most choices as workmates, the three who would receive the most choices as playmates, and the three who would receive the most choices as seatmates. When the teachers had completed their judgments the students were asked to name the three children in their class with whom they would most like to work with, the three they would most like to play with, and the three they would most like to sit near.

The correlation of the teachers' judgments with the sociometric test scores indicated that the primary grade teachers were better able to anticipate children's choices than were the intermediate grade teachers. It was found that the intermediate grade teachers were best able to predict children's choices of playmates, and that primary grade teachers were best able to anticipate children's choices of seatmates. Furthermore, they concluded that the least perceptive teachers chose children on the basis of intelligence in all three categories. However, the perceptive teachers were aware of social realities and were thus more capable of judging children's choices.[10]

In summary, the literature related to this study has indicated that the sociometric test may be used as a reliable index of sociometric status, and that it has been found to be fairly stable. However, in regard to teachers' judgments of pupil sociometric status it is evident that the ability of teachers to make such judgments varies widely

among teachers. Some teachers being quite accurate, whereas, some are very poor judges. Also in reviewing related research it appears that in some studies there has been a difference in the teachers' degree of accuracy in the three categories: work companion, play companion, and seat companion.

CHAPTER III

METHOD OF INVESTIGATION

The procedure used in this study may be described as follows: six teachers, representing grades one through six in a selected northern Indiana elementary school, were asked to make judgments concerning the sociometric status of their pupils. Each teacher was given two teacher judgment forms, one containing the names of the girls in her room, and one containing the names of the boys. To the right of these names were three columns, one for work companion, one for play companion, and one for seat companion. Beginning with the judgment form for girls each teacher ranked her girl pupils in the order in which she judged they would be accepted by their classmates as work companions. This same procedure was then followed for the girls' acceptance as play companions, and finally as seat companions. When this judgment form was completed the above procedure was repeated for the boys' judgment form.

After both of these forms were complete six sets of judgments were received from each teacher: one each for the sociometric status of girls as work companions, play companions, and seat companions; and one each for the sociometric status of boys as work companions, play companions, and seat companions.

The next step was to administer sociometric tests to the six participating classes. At the beginning of this

testing each teacher provided her pupils with a complete list of all the pupils in the room. She then asked them to select from this list the names of five classmates with whom they would most prefer to work~~.with.~~ Then they were instructed to write these five names down on a slip of paper which was later collected. The use of five choices was decided upon since it was found by Gronlund that the reliability of sociometric status increased with the number of choices up to five.[11]

On the following day each student was asked to select the five pupils with whom he would most prefer to play ~~with~~, and list their names. On the third day each student listed the five pupils he would most prefer to sit near.

CHAPTER IV

ANALYSIS OF DATA

To determine if there was any relationship between the teachers' judgments and the sociometric status of their pupils the following procedure was carried out for each of the six classes. The number of choices each pupil received was tallied separately for each of the three sociometric tests. Each choice was assigned a value of one regardless of whether it was a first, second, third, fourth, or fifth choice. When these results were tabulated the pupils were then ranked, with the pupil receiving the most votes being assigned the rank of 1, the pupil receiving the second most votes being assigned the rank of 2, and so forth. In the case where several pupils received the same number of votes they were each assigned the median rank. For example, if three pupils each received eight votes, a nd if this happened to be the highest number of votes received by anyone, then each of the three pupils would be assigned the median rank of 2.

After completing this process a total of six sets of sociometric ranks was obtained for each class with three of these sets being for the girls, and three for the boys. The Spearman Rank-Order Correlation Coefficient was then used to calculate the correlation between the six sets of the teacher's judgments and the six sets of sociometric results from each class.[12] These correlation coefficients are

presented in Table 1.

TABLE 1. CORRELATION COEFFICIENTS OF TEACHER JUDGMENTS AND PUPIL SOCIOMETRIC STATUS BY GRADE AND SELECTED SOCIOMETRIC CRITERIA

Grade level	Work companion	Play companion	Seat companion
GIRLS			
1	.73	.64	.67
2	.40	.74	.75
3	.60	.64	.69
4	.79	.41	.56
5	.74	.81	.84
6	.31	.51	.28
Mean (girls)	.60	.63	.63
BOYS			
1	.54	.23	.62
2	.10	.09	.20
3	.62	.30	.30
4	.67	.81	.72
5	.82	.56	.44
6	.26	.69	.62
Mean (boys)	.50	.45	.48

An examination of Table 1 reveals that teachers vary from .09 to .84 in their ability to make sociometric judgments, and it also seems that teachers in this study made better judgments concerning their girls than their boys.

The mean accuracy of teachers' judgments for girls being higher in all three categories than the mean accuracy for boys in these categories. In comparing these means it appears that teachers did nearly equally well in each of the categories.

In order to retain or reject the null hypothesis that, there is no signigicant relationship between the teacher's judgment of her pupils' social status and the pupils' actual social rank in the class, the correlation coefficients were applied to the *r*-test at the .05 level of significance.[13] The results are presented in Table 2.

TABLE 2. ANALYSIS OF TEACHER JUDGMENT AND PUPIL SOCIOMETRIC STATUS ACCORDING TO SELECTED SOCIOMETRIC CRITERIA CLASSIFIED BY SEX

Sex	Sociometric criteria	r*	df	t.05	Null hypothesis
GRADE 1					
Girls	Work	.73	10	.58	Reject
Girls	Play	.64	10	.58	Reject
Girls	Seat	.67	10	.58	Reject
Boys	Work	.54	13	.51	Reject
Boys	Play	.23	13	.51	Retain
Boys	Seat	.62	13	.51	Reject
GRADE 2					
Girls	Work	.40	17	.46	Retain
Girls	Play	.74	17	.46	Reject
Girls	Seat	.75	17	.46	Reject

*r = correlation, df = degrees of freedom

TABLE 2 (Continued)

Sex	Sociometric criteria	r*	df	t.05	Null hypothesis
GRADE 2 (Continued)					
Boys	Work	.10	15	.48	Retain
Boys	Play	.09	15	.48	Retain
Boys	Seat	.20	15	.48	Retain
GRADE 3					
Girls	Work	.60	16	.47	Reject
Girls	Play	.64	16	.47	Reject
Girls	Seat	.69	16	.47	Reject
Boys	Work	.62	12	.53	Reject
Boys	Play	.30	12	.53	Retain
Boys	Seat	.30	12	.53	Retain
GRADE 4					
Girls	Work	.79	11	.55	Reject
Girls	Play	.41	11	.55	Retain
Girls	Seat	.56	11	.55	Reject
Boys	Work	.67	18	.44	Reject
Boys	Play	.81	18	.44	Reject
Boys	Seat	.72	18	.44	Reject
GRADE 5					
Girls	Work	.74	11	.55	Reject
Girls	Play	.81	11	.55	Reject
Girls	Seat	.84	11	.55	Reject
Boys	Work	.82	13	.51	Reject
Boys	Play	.56	13	.51	Reject
Boys	Seat	.44	13	.51	Retain
GRADE 6					
Girls	Work	.31	13	.51	Retain
Girls	Play	.50	13	.51	Retain
Girls	Seat	.28	13	.51	Retain
Boys	Work	.26	13	.51	Retain
Boys	Play	.69	13	.51	Reject
Boys	Seat	.62	13	.51	Reject

*r = correlation, df = degrees of freedom

In reviewing Table 2 it is evident that in 13 instances the null hypothesis was retained, whereas, in 23 cases it was rejected. Also it appears that the null hypothesis was rejected almost an equal number of times in each of the three categories: eight times for work companion, seven times for play companion, and eight times for seat companion. This would seem to indicate that generally speaking there was no one area in which the teachers' judgments were accurate to a greater or lesser degree.

In examining Table 2 it appears that teachers' judgments do not necessarily increase or decrease as one ascends from first grade through sixth grade. In fact, the number of times the primary grade teachers rejected the null hypothesis was almost equal to the number of times it was rejected by intermediate grade teachers. This number being eleven times for primary teachers, and twelve for intermediate.teachers.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATION

Summary

The subject of this study was that of determining if there was any relationship between the accuracy of teachers' judgments concerning their pupils' social status and the pupils' actual social rank in the class. Six teachers were involved in this study with one representing each of the grades from one through six. Each teacher was given two teacher judgment forms, one pertaining to the girls in her room, and one pertaining to the boys. On each of these forms were listed the pupils' names and to the right of these were three columns: one for work companion, one for play companion, and one for seat companion. The teachers used these columns to rank their pupils according to how they perceived their pupils were accepted by their classmates in each of these areas. The rank of 1 being assigned to the pupil whom the teacher judged would receive the most choices from his classmates in that particular category. The rank of 2 thus being given to the pupil whom the teacher felt would receive the second most choices, and so forth on down the line. Since boys and girls were ranked separately each teacher completed six sets of rankings, three for girls, and three for boys.

After the teachers' judgments were completed three

different sociometric tests were administered to their pupils with one being given each day for three successive days. On the first day the pupils were asked to list the five pupils in their class with whom they would most prefer to work with; the second day they listed the names of the five pupils they would most prefer to play with; the third day the pupils listed the names of the five classmates with whom they would most prefer to sit near. The number of choices a pupil received on each of the tests was calculated and in this way each pupil could be ranked in each of the categories. Since there were three criteria used in giving the sociometric tests each pupil received a seperate ranking for each of these categories.

To determine the relationship between the teachers' judgments of the sociometric status and the actual sociometric status as measured by the sociometric tests, the Spearman Rank-Order Correlation Coefficient was used. Since there were six classes involved in this study a total of 36 correlations was obtained. Then in order to retain or reject the null hypothesis that there is no significant relationship between the teacher's judgment of her pupils' social status and the pupils' actual social rank in the class, the correlations were compared with the r-scores at the .05 level of significance. As a result the null hypothesis was retained 13 times, and rejected the remaining 23 times.

It appears that the null hypothesis was rejected almost an equal number of times for each of the three criteria: eight times for work companion, seven times for play companion, and eight times for seat companion. When the primary and intermediate grades are compared it is evident that the null hypothesis was rejected nearly the same number of times by each.

Conclusions

In examining the results of this study it appears that there is a difference between teachers in the accuracy of their judgments concerning the sociometric status of their pupils. The correlation coefficients representing the accuracy of the teachers' judgments ranged from .09 to .84. In general teachers were more accurate in judging their girls than their boys, with the mean accuracy of teachers' judgments for girls being higher in all three categories than their judgments for boys. It is evident in comparing these means that teachers did equally well in judging their pupils according to work companions, play companions, and seat companions. Also it appears that primary and intermediate grade teachers did almost equally well in their judgments.

Recommendation

Since the social adjustment of pupils has become one of the objectives of modern education it is important that a teacher be able to judge the social status of her pupils in order to help them further their social adjustment. However, this study has shown that the ability of teachers to make such judgments varies widely among teachers. Perhaps, it would be valuable to conduct further research in this area to determine if, and how the teachers' judgments could be improved and become more accurate. Possibly this could be achieved through specific training in this area. Hopefully this increased accuracy would, in turn, help teachers become more effective in promoting the social adjustment of their pupils.

FOOTNOTES

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[1]Moreno, J.L., Who Shall Survive?, p. 11.

[2]Gronlund, Norman, "The Accuracy of Teachers' Judgments Concerning the Sociometric Status of Sixth-Grade Pupils," in The Sociometry Reader, p. 581.

[3]Moreno, op. cit., p. 24.

[4]Bronfenbrenner, Urie, "A Constant Frame of Reference for Sociometric Research: Part II, Experiment and Inference," Sociometry 7:69, February, 1944.

[5]Moreno, op. cit., p. 25.

[6]Bonney, M.E., "The Constancy of Sociometric Scores and Their Relationship to Teacher Judgments of Social Success, and to Personality Self-Ratings," Sociometry 6:419, November, 1943.

[7]Bonney, M.E., "Sociometric Study of Agreement Between Teacher Judgments and Student Choices," Sociometry 10:133-146, May, 1947.

[8]Gage, N.L., Leavitt, G.S., Stone, G.C., Teachers' Understanding of Their Pupils and Pupils' Ratings of Their Teachers, Psychological Monographs: General and Applied, vol. 69, no. 21, American Psychological Association, Inc., Washington, D.C., 1955.

[9]Gronlund, op. cit., p. 581.

[10]Hoffman, C.B., Amidon,E.J., Schantz, B.B., "Teacher Perception of Pupil Sociometric Choice," The Teachers College Journal 37:4, January, 1966.

[11]Gronlund, op. cit., p. 596 (citing Group Adjustment: A Study in Experimental Sociology, p. 35, by Wilber I. Newstetter, Mark J. Feldstein, Theodore M. Newcomb, School of Applied Social Sciences, Western Reserve University, Cleveland, 1938).

[12]Downie, N.M., Heath, R.W., Basic Statistical Methods, p. 207.

[13]Ibid., p. 306 (citing Statistical Tables for Biological, Agricultural, and Medical Research, Table VI, by R.A. Fisher, F. Yates, Oliver and Boyd Ltd., Edinburgh).

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APPENDIX

APPENDIX

Appendix A

Teacher Judgment Forms

Teacher Judgment -- Girls Grade Level ____

Girls Names	Work Companion	Play Companion	Seat Companion
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			

Teacher Judgment -- Boys Grade Level ____

Boys Names	Work Companion	Play Companion	Seat Companion
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			

Appendix B

Teacher Judgment Rankings and Pupil Sociometric Rankings According to Grade Level and Selected Sociometric Criteria

Pupil	Teacher judgment	Pupil sociometric status
GIRLS, GRADE 1, WORK COMPANIONS		
1	10	7
2	4	4.5
3	1	1.5
4	6	10
5	7	3
6	8	7
7	9	10
8	2	1.5
9	3	7
10	5	4.5
11	11	10
GIRLS, GRADE 1, PLAY COMPANIONS		
1	10	9
2	2	4.5
3	6	2
4	4	4.5
5	8	7.5
6	7	10.5
7	9	7.5
8	3	3
9	1	6
10	5	1
11	11	10.5
GIRLS, GRADE 1, SEAT COMPANIONS		
1	10	9
2	3	3.5

Pupil	Teacher judgment	Pupil sociometric status
GIRLS, GRADE 1, SEAT COMPANIONS (Continued)		
3	5	3.5
4	4	11
5	7	6.5
6	8	6.5
7	9	9
8	2	1
9	1	3.5
10	6	3.5
11	11	9
BOYS, GRADE 1, WORK COMPANIONS		
1	6	4
2	3	1
3	7	4
4	8	4
5	13	13
6	4	10
7	12	14
8	1	7.5
9	11	4
10	9	11.5
11	5	4
12	2	7.5
13	10	9
14	14	11.5
BOYS, GRADE 1, PLAY COMPANIONS		
1	13	9.5
2	2	1
3	6	11
4	8	2.5
5	12	14
6	5	5.5
7	7	12.5
8	1	9.5
9	10	5.5
10	9	8

Pupil	Teacher judgment	Pupil sociometric status
BOYS, GRADE 1, PLAY COMPANIONS (Continued)		
11	4	12.5
12	3	5.5
13	14	5.5
14	11	12.5
BOYS, GRADE 1, SEAT COMPANIONS		
1	12	9.5
2	3	1
3	6	4
4	8	7.5
5	13	11.5
6	5	9.5
7	11	13.5
8	1	2.5
9	14	5.5
10	7	11.5
11	4	7.5
12	2	2.5
13	9	5.5
14	10	13.5
GIRLS, GRADE 2, WORK COMPANIONS		
1	5	7
2	18	11.5
3	4	5
4	17	14.5
5	12	9.5
6	13	12.5
7	15	14.5
8	2	1
9	6	5
10	1	17
11	9	18
12	10	9.5
13	11	14.5
14	3	8
15	16	14.5

Pupil	Teacher judgment	Pupil sociometric status
GIRLS, GRADE 2, WORK COMPANIONS (Continued)		
16	8	5
17	14	2.5
18	7	2.5
GIRLS, GRADE 2, PLAY COMPANIONS		
1	3	5.5
2	18	13.5
3	4	3
4	17	13.5
5	11	9.5
6	12	13.5
7	16	17.5
8	8	1
9	1	3
10	5	13.5
11	13	17.5
12	14	9.5
13	10	13.5
14	6	3
15	15	13.5
16	7	8
17	9	7
18	2	5.5
GIRLS, GRADE 2, SEAT COMPANIONS		
1	2	9
2	18	12
3	3	6
4	15	16.5
5	12	14
6	9	9
7	14	16.5
8	7	3.5
9	1	1
10	6	6

Pupil	Teacher judgment	Pupil sociometric status
GIRLS, GRADE 2, SEAT COMPANIONS (Continued)		
11	13	12
12	17	12
13	11	16.5
14	5	2
15	16	16.5
16	8	3.5
17	10	6
18	4	9
BOYS, GRADE 2, WORK COMPANIONS		
1	13	8.5
2	8	8.5
3	7	12
4	9	3
5	3	12
6	6	5.5
7	2	2
8	14	8.5
9	10	14.5
10	16	12
11	12	5.5
12	11	1
13	5	8.5
14	4	4
15	1	16
16	15	14.5
BOYS, GRADE 2, PLAY COMPANIONS		
1	7	10.5
2	10	6.5
3	6	16
4	11	3
5	3	4.5
6	2	6.5
7	9	1.5
8	16	10.5

Pupil	Teacher judgment	Pupil sociometric status
BOYS, GRADE 2, PLAY COMPANIONS (Continued)		
9	8	10.5
10	15	4.5
11	13	4.5
12	4	1.5
13	12	10.5
14	5	10.5
15	1	10.5
16	14	14.5
BOYS, GRADE 2, SEAT COMPANIONS		
1	10	5
2	5	5
3	3	16
4	2	8
5	12	10
6	11	5
7	1	5
8	14	11.5
9	9	13.5
10	16	15
11	8	2
12	13	1
13	7	11.5
14	6	5
15	4	9
16	15	13.5
GIRLS, GRADE 3, WORK COMPANIONS		
1	15	15.5
2	9	11
3	4	1.5
4	10	8.5
5	1	3.5
6	6	3.5
7	7	13.5
8	13	15.5

Pupil	Teacher judgment	Pupil sociometric status
GIRLS, GRADE 3, WORK COMPANIONS (Continued)		
9	16	11
10	14	8.5
11	8	5
12	17	17
13	12	11
14	2	13.5
15	11	6
16	3	7
17	5	1.5
GIRLS, GRADE 3, PLAY COMPANIONS		
1	17	13.5
2	8	7.5
3	6	3
4	14	16.5
5	2	4.5
6	13	2
7	4	13.5
8	11	13.5
9	12	13.5
10	10	10
11	1	4.5
12	16	16.5
13	15	11
14	7	9
15	9	7.5
16	5	6
17	3	1
GIRLS, GRADE 3, SEAT COMPANIONS		
1	16	12.5
2	13	9
3	6	1.5
4	12	16
5	2	5

Pupil	Teacher judgment	Pupil sociometric status
GIRLS, GRADE 3, SEAT COMPANIONS (Continued)		
6	5	4
7	7	9
8	8	12.5
9	10	12.5
10	11	12.5
11	1	1.5
12	17	17
13	15	9
14	9	15
15	14	6.5
16	3	6.5
17	4	3
BOYS, GRADE 3, WORK COMPANIONS		
1	4	7.5
2	3	4.5
3	2	1
4	11	2.5
5	9	11
6	6	7.5
7	13	13
8	10	11
9	8	11
10	12	7.5
11	5	7.5
12	7	4.5
13	1	2.5
BOYS, GRADE 3, PLAY COMPANIONS		
1	2	10.5
2	9	6.5
3	1	2
4	7	2
5	6	8.5

Pupil	Teacher judgment	Pupil sociometric status
BOYS, GRADE 3, PLAY COMPANIONS (Continued)		
6	10	6.5
7	13	13
8	3	4.5
9	11	12
10	12	2
11	4	8.5
12	8	10.5
13	5	4.5
BOYS, GRADE 3, SEAT COMPANIONS		
1	1	8.5
2	7	3.5
3	2	1.5
4	4	5.5
5	3	11.5
6	8	8.5
7	13	13
8	11	8.5
9	10	11.5
10	12	3.5
11	6	8.5
12	9	5.5
13	5	1.5
GIRLS, GRADE 4, WORK COMPANIONS		
1	12	12
2	8	10
3	2	1.5
4	5	7.5
5	1	1.5
6	4	7.5
7	7	6
8	10	11
9	6	4
10	9	4

Pupil	Teacher judgment	Pupil sociometric status
GIRLS, GRADE 4, WORK COMPANIONS (Continued)		
11	3	4
12	11	9
GIRLS, GRADE 4, PLAY COMPANIONS		
1	12	11.5
2	10	11.5
3	3	3
4	5	10
5	1	1
6	2	7.5
7	6	7.5
8	9	7.5
9	4	7.5
10	8	3
11	7	5
12	11	3
GIRLS, GRADE 4, SEAT COMPANIONS		
1	12	12
2	10	11
3	6	6
4	7	8.5
5	1	1
6	2	7
7	5	10
8	8	8.5
9	4	4
10	9	3
11	3	2
12	11	5
BOYS, GRADE 4, WORK COMPANIONS		
1	9	6
2	14	17.5
3	17	17.5
4	1	1
5	16	17.5

Pupil	Teacher judgment	Pupil sociometric status
BOY S, GRADE 4, WORK COMPANIONS (Continued)		
6	6	11.5
7	7	2
8	11	6
9	3	8.5
10	10	13.5
11	4	10
12	2	4
13	8	11.5
14	13	3
15	12	8.5
16	5	6
17	15	15
18	18	17.5
19	19	13.5
BOYS, GRADE 4, PLAY COMPANIONS		
1	8	4
2	12	16.5
3	16	16.5
4	7	1
5	17	19
6	4	16.5
7	6	2.5
8	10	10
9	1	6
10	5	9
11	9	6
12	3	8
13	2	2.5
14	13	6
15	15	13
16	10	11
17	14	13
18	19	16.5
19	18	13

Pupil	Teacher judgment	Pupil sociometric status
BOYS, GRADE 4, SEAT COMPANIONS		
1	6	4
2	15	17.5
3	17	17.5
4	5	1
5	16	17.5
6	9	10.5
7	8	3
8	12	6
9	2	8.5
10	11	13.5
11	7	2
12	1	5
13	4	8.5
14	10	7
15	13	10.5
16	3	12
17	14	13.5
18	18	17.5
19	19	15
GIRLS, GRADE 5, WORK COMPANIONS		
1	11	9.5
2	12	12
3	1	4.5
4	3	3
5	2	4.5
6	4	6
7	6	1
8	7	7.5
9	8	11
10	9	9.5
11	10	7.5
12	5	2

Pupil	Teacher judgment	Pupil sociometric status
GIRLS, GRADE 5, PLAY COMPANIONS		
1	12	11
2	8	12
3	7	6
4	6	9
5	5	2.5
6	3	4
7	2	1
8	4	6
9	9	6
10	11	9
11	10	9
12	1	2.5
GIRLS, GRADE 5, SEAT COMPANIONS		
1	11	12
2	12	11
3	6	3.5
4	3	3.5
5	4	5.5
6	5	8.5
7	1	1
8	7	8.5
9	8	8.5
10	9	8.5
11	10	5.5
12	2	2
BOYS, GRADE 5, WORK COMPANIONS		
1	13	13.5
2	11	8.5
3	3	1
4	8	6
5	1	2.5
6	14	13.5
7	5	6
8	2	4

Pupil	Teacher judgment	Pupil sociometric status
BOYS, GRADE 5, WORK COMPANIONS (Continued)		
9	12	8.5
10	10	12
11	4	2.5
12	7	10.5
13	6	10.5
14	9	6
BOYS, GRADE 5, PLAY COMPANIONS		
1	10	9
2	1	5.5
3	5	1
4	9	7
5	4	3
6	13	9
7	8	9
8	7	3
9	11	11
10	2	12.5
11	6	3
12	12	12.5
13	14	14
14	3	5.5
BOYS, GRADE 5, SEAT COMPANIONS		
1	12	6.5
2	2	3
3	5	6.5
4	9	9
5	4	11
6	10	11
7	6	11
8	1	6.5
9	11	3
10	7	6.5
11	8	1
12	13	14

Pupil	Teacher judgment	Pupil sociometric status
BOYS, GRADE 5, SEAT COMPANIONS (Continued)		
13	14	13
14	3	3
GIRLS, GRADE 6, WORK COMPANIONS		
1	7	3
2	1	6
3	5	5
4	6	3
5	13	13
6	2	7.5
7	4	10
8	3	13
9	12	13
10	8	1
11	11	10
12	10	7.5
13	14	10
14	9	3
GIRLS, GRADE 6, PLAY COMPANIONS		
1	3	1.5
2	2	13
3	1	3.5
4	4	5
5	13	6.5
6	8	8.5
7	5	6.5
8	9	10.5
9	12	10.5
10	7	1.5
11	11	13
12	10	8.5
13	14	13
14	6	3.5

Pupil	Teacher judgment	Pupil sociometric status
GIRLS, GRADE 6, SEAT COMPANIONS		
1	7	5
2	4	9
3	3	2.5
4	2	2.5
5	14	9
6	5	9
7	1	13.5
8	8	9
9	11	9
10	6	2
11	9	12
12	12	6
13	13	13.5
14	10	4
BOYS, GRADE 6, WORK COMPANIONS		
1	2	9
2	10	2
3	5	4
4	14	11.5
5	12	13.5
6	7	13.5
7	11	5
8	1	1
9	3	7
10	6	7
11	4	10
12	8	11.5
13	13	7
14	9	3
BOYS, GRADE 6, PLAY COMPANIONS		
1	4	8.5
2	5	1
3	1	3
4	11	11
5	13	13.5

Pupil	Teacher judgment	Pupil sociometric status
BOYS, GRADE 6, PLAY COMPANIONS (Continued)		
6	7	12
7	10	5.5
8	3	2
9	6	8.5
10	2	5.5
11	14	10
12	12	13.5
13	9	7
14	8	4
BOYS, GRADE 6, SEAT COMPANIONS		
1	3	10
2	7	2
3	2	3
4	12	11
5	14	13
6	8	13
7	10	4
8	1	1
9	6	8.5
10	4	5.5
11	13	8.5
12	11	13
13	9	7
14	5	5.5